20 August 1959

MEMORANDAM FOR: Assistant Director, CR

SUBJECT : Automation of Information Retrieval

- 1. The need for accurate and rapid information retrieval from OCR files is just as essential today as it will be next year or within the next five years. Our present system does not give uniform input nor retrieval results, yet we are spending a great deal of effort to determine what storage and retrieval machinery we need in order to provide rapid and "sephisticated" information storage and retrieval service. We know now that regardless of the type of equipment selected our indexing input must be more accurate, more specific and uniform.
- 2. I believe that the Intellofax input should be modified just as soon as indexing requirements are determined by the OCR Automation Development Group and the necessary training of personnel can be accomplished rather than wait until the type of storage and retrieval equipment to be used is decided.
- 3. The problem of additional personnel requirements will become the most important one to solve inasmuch as any revemping of the Intellofax input indexing criteria will require some two to six times more coders than we now have on our T/O. The only way we can provide the additional slots within our present T/O ceiling is to mechanize and modernize our document processing system so as to eliminate dissemination and clerical jobs and thereby free the slots for coder jobs.
- instricted codes on paper tape by the coder would be the main means of eliminating dissemination and clerical jobs in the document processing system. Instead of preparing code sheets and then punching cards, the tapes prepared by the analysts could be used for automatically punching the codes into the Intellofax cards. I am sure that part of the dissemination job, possibly the batch control job and the preparation of aperture cards could also be accomplished by using these tapes; they could also be used to punch cards for use in preparing cross-reference lists and obviate the need (at least 90%) for the Library source file.

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5. I recommend that the Automation Development Group assign personnel on a full time basis to prepare a study (a) on the feasibility of using such a coding machine and other mechanical aids in our document processing system, (b) the detailed revisions of our procedures - both in the Document and Machine Divisions as well as the Library - which would be required, and (c) the number of clerical jobs which could be eliminated so that slots for analysts could be created within our present T/O ceiling.

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Chief, Document Division

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